

## CLAIMS

1. An optical wave guide element having a substrate which has the electro-optic effect and an optical wave guide formed on the substrate, characterized by comprising:

a reflective means formed on a side of the substrate where an end of the optical wave guide is positioned; and optical fiber connected to the substrate which is placed apart from the optical wave guide, wherein light waves that propagate between the reflective means and the optical fiber propagate within the substrate excluding the optical wave guide.

2. The optical wave guide element according to Claim 1, characterized in that the optical fiber is connected to a side of the substrate where the reflective means is not formed, or to bottom surface of the substrate.

3. The optical wave guide element according to Claim 1 or 2, characterized in that the propagation distance of light waves, which propagate inside the substrate excluding the optical wave guide, is 200  $\mu\text{m}$  or less.

4. The optical wave guide element according to any of Claims 1 to 3, characterized in that the angle formed between the normal direction of the reflective means and the optical axis of the optical wave guide that makes contact with the reflective means is no smaller than the angle of the total reflection of the light waves that are transmitted through the optical wave guide.

5. The optical wave guide element according to any of Claims 1 to 4, characterized in that the reflective means has a reflective film.

6. The optical wave guide element according to any of Claims 1 to 3, characterized in that the reflective means separates the light waves transmitted from the optical wave guide side into transmitted light and

reflected light so that the transmitted light is made to enter a light receiving element provided outside the substrate.

7. A manufacture for the optical wave guide element according to any of Claims 1 to 6, characterized in that the position where the substrate and the optical fiber are connected is determined while the light intensity of the light waves that propagate through the substrate excluding the optical wave guide is being detected.